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## CLAIMS

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- 1. Solid pulverulent reactive composition for the purification of a gas, comprising sodium bicarbonate and a caking inhibitor for sodium bicarbonate, characterized in that the inhibitor comprises lignite coke and/or a magnesium compound comprising magnesium (hydr) oxide.
- 2. Composition according to Claim 1, characterized in that it is substantially devoid of silica.
- 10 3. Composition according to Claim 1 or 2, characterized in that the magnesium compound comprises basic magnesium carbonate.
- 4. Composition according to any one of Claims 1 to 3, characterized in that it comprises at least 90% by weight of sodium bicarbonate and in that its content by weight of inhibitor is greater than 0.5% of the weight of sodium bicarbonate.
- 5. Composition according to Claim 4, characterized in that, in the case where the inhibitor comprises a 20 magnesium compound, the latter is present in an amount by weight at least equal to 2% of the weight of sodium bicarbonate.
- 6. Composition according to Claim 4, characterized in that, in the case where the inhibitor comprises lignite coke, the latter is present in an amount at least equal to 5% of the weight of sodium bicarbonate.
  - 7. Process for the purification of a gas, according to which a reactive composition comprising sodium bicarbonate is introduced into the gas and the gas is subjected to removal of dust, characterized in that the reactive composition is substantially devoid of silica.
  - 8. Process according to Claim 7, characterized in that the removal of dust comprises filtration through a filter cloth.
  - 9. Process according to Claim 7 or 8, characterized in that the reactive composition is in accordance with any one of Claims 2 to 6.

Process according to any on purification of a gas 10. for the purification at from least contaminant selected from hydrogen chloride, hydrogen fluoride, sulphur oxides, nitrogen oxides, dioxins and furans.

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